Abstract of the Disclosure

The present invention relates to an optical filter comprising an integrated wavelength dispersive element having an input for providing temperature compensation, particularly for providing passive temperature compensation in an arrayed waveguide grating. The present invention has found that by providing an arrayed waveguide grating having a thermally responsive pivotal input structure for changing an angle of a collimated input signal launched into a focusing lens, the input point can be selected in response to changing temperature in order to compensate for thermal drift of the center wavelength. Further, the present invention has found that by providing a reflective lens assembly for focusing an input signal at a selected input point of the input planar waveguide, alignment and tuning of an input and assembly can be improved and simplified. As an additional advantage, variable coupling parameters can be incorporated into a reflective coupling including input position, waveguide taper and planar waveguide length increment to provide relatively simple tuning in an integrated device.